

REMARKS

I. Summary of the Examiner's Action

A. Claim Rejections

In paragraph 1 of the Office Action dated January 25, 2005, the Examiner rejected claims 1 – 15, 17, 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,687,518 to Park (hereinafter “the Park patent”) in view of United States Patent No. 6,115,616 to Halperin *et al.* (hereinafter “the Halperin patent”) and further in view of United States Patent No. 4,470,431 to Little (hereinafter the “Little patent”).

II. Applicants' Response – Claim Rejections

A. Rejection of Claims 1 – 15, 17, 19 and 20 under 35 U.S.C. § 103(a)

Claim 1 is reproduced here with emphasis added to show the subject matter which is neither described nor suggested by the references of record:

1. A mobile station, comprising:
 - a communication part that comprises a controller, an RF transceiver and an antenna; and
 - a self-powered information entry part comprising a keypad or keypad module that is detachable from said communication part and that is coupled, whether attached or detached, through a wireless link to said communication part for

conveying keystroke information from said information entry part to said communication part.

Applicants note that the information entry part and keypad modules of the present invention are self-powered and require no power connection to another device:

The keypad module further includes a source for providing operating power for the keypad module, where the source includes at least one photovoltaic cell used alone or in combination with a battery.

Application, Page 3, lines 9 – 11. It is made clear elsewhere that when used in combination with a battery, the battery of the information entry module of the present invention is rechargeable by the solar cell:

An optional battery 11F can be used for powering the keypad module 11 under low light conditions. The battery 11F could be a rechargeable type that is recharged from the solar cell(s) 16.

Application, Page 6, line 29 – page 7, line 2. Thus, in the embodiments of the present invention, the information entry parts and keypad modules are self-powered by a solar cell alone or in combination with a rechargeable battery and need not be connected to another device for the purpose of being recharged.

This provides for a simple device since the communication part to which the self-powered information entry part may be coupled need not contain circuitry either to monitor the power state of the self-powered information entry part or to recharge the self-powered information entry part.

Applicants respectfully submit that neither the Park nor Halperin references – which concern communications devices having detachable keypad modules – show any appreciation for this mode of operation. In fact, an embodiment disclosed in the Halperin requires that a detachable keyboard card be reattached to the handset so that a battery incorporated in the detachable keyboard can be recharged:

A secondary battery B1 is provided on the keyboard card 16 and gets charged preferably whenever the main battery B2 of the handset gets charged. [Halperin patent, Column 2, lines 61 – 63]

Thus, neither the Park nor the Halperin references show any appreciation for the modes of operation permitted by the self-powered information entry parts and keypad modules of Applicants' invention.

In addition, for at least two reasons Applicants respectfully submit that it is impermissible to combine the Little and Halperin patents. First, the Halperin patent teaches away from Applicants' invention since instead of providing a self-powered detachable keyboard alternative to redress the need to recharge batteries incorporated in its battery-powered embodiment, the Halperin patent suggests a passively-powered alternative:

To avoid the need for a secondary battery, as well as the need for the transmitter/receiver E1-R2 combination, one can also use a wired communication between the keyboard card 16 and the main body 10. [Halperin patent, Column 3, lines 19 – 22]

One of the features of this alternative implementation is that the keyboard is passive; it does not have a power source or battery and no recharging is needed. [Halperin patent, Column 4, lines 10 – 12]

Thus, one of ordinary skill in the art having the Halperin disclosure in mind would not be motivated to combine the Little and Halperin references since for purposes of simplification the Halperin reference teaches to delete the battery of the detachable keyboard and adopt a passive mode of operation.

Second, the detachable keyboard embodiment of Halperin incorporating a battery apparently is charged when connected to the handset. Combining the disclosure of the Little reference with this portion of the Halperin disclosure would be impermissible for being both a hindsight combination made using the teaching of Applicants' own disclosure and for requiring a redesign of the Halperin reference in violation of MPEP § 2143.01 (proposed modification cannot change the principle of operation of a reference).

It would be impermissible hindsight because only Applicants' own disclosure makes the combination; the Halperin reference teaches away from it. It would require an impermissible change to the principle of operation because the battery incorporated in the detachable keyboard of the Halperin reference is recharged by an external source – not by an internal source.

Applicants therefore respectfully submit that claim 1 is patentable over the art of record, and therefore respectfully request that its rejection be withdrawn. Independent claims 7, 13, 15 and 16, which recite similar limitations as claim 1, are likewise patentable for the foregoing reasons and their rejection should be withdrawn. Dependent claims 2 – 3, 5 – 6, 8 – 9, 11 – 12, 14, 19 – 20 are patentable for depending from allowable independent claims.

III. Conclusion

Applicants submit that in light of the foregoing amendments and remarks the application is now in condition for allowance. Applicants therefore respectfully request that the outstanding rejections be withdrawn and that the case be passed to issuance.

Respectfully submitted,

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Date

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